WHAT IS CLAIMED IS:

1. For use in the baking industry, a nutritional and energy reduced fiber-based baking ingredient having a reduced glycemic index, comprising from 20% to 30% crude protein, from 50% to 80% fiber, up to 15% crude fat, and up to 2% of additional nutritional components chosen from the group consisting of lysine, amino acids, nutritional minerals, and mixtures and combinations thereof:

wherein said fiber-based baking ingredient is derived from cereal grains chosen from the group consisting of wheat, barley, rye, corn, rice, oats, flax, and mixtures and combinations thereof; and

wherein said fiber-based baking ingredient is initially derived as a by-product from the brewing or distilling industries.

- 2. The reduced glycemic index fiber-based baking ingredient of claim 1, wherein said fiber-based baking ingredient comprises from 50% to 70% of a high fiber, high protein, low moisture baking additive, with the balance thereof being water.
- 3. The reduced glycemic index fiber-based baking ingredient of claim 1, wherein said fiber-based baking ingredient comprises from 20% to 25% of a high fiber, high protein, high moisture baking additive, with the balance thereof being water.
- 4. The reduced glycemic index fiber-based baking ingredient of claim 1, wherein, the pH level is acidic, in the range of from 2.5 to 6.9.
- 5. The reduced glycemic index fiber-based baking ingredient of claim 1, wherein the pH level has been adjusted to be in the range of 7.0 to 11.5, by the addition of an alkali which is ingestible by humans.

- 6. The reduced glyc mic index fiber-based baking ingredi nt of claim 5, wherein the alkali is sodium bicarbonat.
- 7. A yeast raised baked bread product which includes flour, yeast, and 10% to 60% by weight thereof of the reduced glycemic index fiber-based baking ingredient of claim 3.
- 8. A baked cookie, muffin, or waffle product which includes flour, a non-yeast raising agent, and 10% to 60% by weight thereof of the reduced glycemic index fiber-based baking ingredient of claim 2
- 9. A baked nutribar product which includes 10% to 80% by weight thereof of the reduced glycemic index fiber-based baking ingredient of claim 2.